CONTENTS OF VOLUME 131

No. 1, November, 1939

PAGE

Rice, Eldon E. A simplified procedure for the isolation of lysine from protein hydrolysates 1

Schultze, M. O., Harrer, Carter J., and King, C. G. Studies on the possible carrier rôle of ascorbic acid in animal tissues 5

Oster, Robert H. Electrodialysis of tissue chloride. I. The method and controls 13

Oster, Robert H., and Amberson, William R. Electrodialysis of tissue chloride. II. Kinetics of removal of chloride from tissues of the dog 19

Chargaff, Erwin, and Ziff, Morris. The compounds between phosphatides and basic proteins 25

Chargaff, Erwin, Ziff, Morris, and Hogg, Bruce M. The reaction between cephalin and hemoglobins 35

Smith, Arthur H., and Meyer, Curtis E. The influence of diet on the endogenous production of citric acid 45

du Vigneaud, Vincent, Chandler, Joseph P., Moyer, A. W., and Keppel, Dorothy M. The effect of choline on the ability of homocystine to replace methionine in the diet 57

Axelrod, A. E., and Elvehjem, C. A. The determination of coenzyme I in animal tissues 77

Axelrod, A. E., Madden, Robert J., and Elvehjem, C. A. The effect of a nicotinic acid deficiency upon the coenzyme I content of animal tissues 85

Chambers, William H., Chandler, Joseph P., and Barker, S. B. The metabolism of carbohydrate and protein during prolonged fasting 95

Bloch, Konrad, and Schoenheimer, Rudolf. Studies in protein metabolism. XI. The metabolic relation of creatine and creatinine studied with isotopic nitrogen 111

Grayman, Isabelle, Nelson, Norton, and Mirsky, I. Arthur. The utilization of acetone bodies. II. The influence of sex 121

Mayer, Mary E. The separation of cathepsin from malignant and normal rat tissue 127

Clarke, Florence, Solkot, Roy, and Corley, Ralph C. Metabolism of certain rare sugars 135

Klein, J. R. Nature of the increase in activity of the *d*-amino acid oxidase of rat liver produced by thyroid feeding 139

White, Julius, and White, Abraham. Inhibition of growth of the

rat by oral administration of methylcholanthrene, benzpyrene, or pyrene, and the effects of various dietary supplements 149

Borsook, Henry, and Dubnoff, Jacob W. Methods for the determination of submicro quantities of total nitrogen, ammonia, amino nitrogen, amides, peptides, adenylic acid, and nitrates 163

Wendel, William B., Wendel, Nannette M., and Cox, W. W. Methemoglobin as the principal abnormal pigment in the blood of humans showing cyanosis from sulfanilamide 177

Junowicz-Kocholaty, R., and Hogness, T. R. The spectroscopic determination of cytochrome C and its distribution in some mammalian tissues. A correction 187

Gordon, William G., Cahill, William M., and Jackson, Richard W. The availability for growth of N-methyltryptophane administered as its acetyl derivative 189

Kingsley, George R. The determination of serum total protein, albumin, and globulin by the biuret reaction 197

Luck, James Murray, Eudin, John, and Nimmo, Charles C. Autolytic changes in the protein and amino acid content of liver 201

Gurin, Samuel, and Hood, Dorothy B. The identification and estimation of hexoses in polysaccharides and glycoproteins by the carbazole method 211

Fishman, W. H. Studies on β-glucuronidase. II. Factors controlling the initial velocity of hydrolysis of some conjugated glucuronides .. 225

Svirbely, Joseph L. Vitamin C studies in the rat. The effect of copper and various organic substances 233

Danielson, I. S., Chu, H. I., and Hastings, A. Baird. The pK'_1 of carbonic acid in concentrated protein solutions and muscle 243

Li, Choh Hao, Simpson, Miriam E., and Evans, Herbert M. Action of ketene on gonadotropic hormones 259

Wood, John L., and du Vigneaud, Vincent. A new synthesis of cystine 267

du Vigneaud, Vincent, Cohn, Mildred, Brown, George Bosworth, Irish, Oliver J., Schoenheimer, Rudolf, and Rittenberg, D. A study of the inversion of *d*-phenylaminobutyric acid and the acetylation of *l*-phenylaminobutyric acid by means of the isotopes of nitrogen and hydrogen 273

Heymann, Walter, and Modic, J. L. Effect of age and fasting on glycogen content of liver and muscle of rats and puppies 297

Hansen, P. Arne, and Nielsen, Verner. Colorimetric determination of ammonia with thymol-hypobromite reagent 309

Gray, E. LeB. Comparison of vitamins A and A_2 by distillation 317

McKee, R. W., Binkley, S. B., Thayer, Sidney A., MacCorquodale, D. W., and Doisy, Edward A. The isolation of vitamin K_2 327

Ewing, D. T., Vandenbelt, J. M., and Kamm, Oliver. The ultraviolet absorption of vitamins K_1, K_2, and some related compounds 345

Contents

MacCorquodale, D. W., Cheney, L. C., Binkley, S. B., Holcomb, W. F., McKee, R. W., Thayer, Sidney A., and Doisy, Edward A. The constitution and synthesis of vitamin K_1 357
Heard, R. D. H., and McKay, A. F. Steroids. II. The isolation of a new androstanol-3(β)-one and of allopregnanol-3(β)-one-20 from the urine of pregnant mares 371
Woolley, D. W., McDaniel, L. E., and Peterson, W. H. Growth factors for bacteria. IX. Studies of a growth factor for *Clostridia* . 381
Hotchkiss, Rollin D. The determination of peptide bonds in crystalline lactoglobulin 387

Letters to the Editors

Cori, Gerty T., and Cori, Carl F. The activating effect of glycogen on the enzymatic synthesis of glycogen from glucose-1-phosphate . . 397
Ansbacher, S., and Fernholz, Erhard. Vitamin K activity in the benzoquinone series 399

No. 2, December, 1939

Kolb, Joseph J., and Toennies, Gerrit. Methionine studies. IV. A color reaction of methionine 401
Emerson, Oliver H., Emerson, Gladys A., and Evans, Herbert M. The vitamin E activity of α-tocoquinone 409
Barnes, Richard H., and Wick, Arne N. A method for the determination of blood acetone bodies 413
Johnston, Charles G., Irvin, J. Logan, and Walton, Clarence. The free choline and phospholipid of hepatic and gallbladder bile 425
Irvin, J. Logan, Merker, Harvey, Anderson, Carl E., and Johnston, Charles G. The comparison of desiccated and normal hog gallbladder bile 439
Barkan, Georg, and Walker, Burnham S. The red blood cell as a source of the iron and bilirubin of the blood plasma 447
Bachman, Carl. Photometric determination of estrogens. I. A modified Kober reaction for determining the total estrogens in a mixture of estrogenic steroids 455
Bachman, Carl. Photometric determination of estrogens. II. A new color reaction for estriol 463
Jackson, Richard W. The excretion of kynurenic acid by members of various families of the order Carnivora 469
Abbott, Lynn DeForrest, Jr., and Lewis, Howard B. Comparative studies of the metabolism of the amino acids. VIII. Glycine precursors. Availability of N-methylglycine, N,N-dimethylglycine, and betaine for the synthesis of hippuric acid by the rabbit 479
Brand, Erwin, and Kassell, Beatrice. The photometric determination of tryptophane, tyrosine, diiodotyrosine, and thyroxine . . 489

Ginsburg, Emanuel, and Benotti, Norbert. The determination of thiocyanate in serum after the administration of its salts 503
Chanutin, Alfred, and Ludewig, Stephan. The distribution of body water and electrolytes in the intact and partially nephrectomized rat after dehydration and hydration 519
Geiger, Walton B., Jr., and Anderson, R. J. The chemistry of the lipids of tubercle bacilli. LVIII. Concerning the firmly bound lipids of the so called leprosy bacillus 539
Anderson, R. J., and Creighton, M. M. The chemistry of the lipids of tubercle bacilli. LIX. The composition of the polysaccharide of the firmly bound lipids of the leprosy bacillus 549
Stotz, Elmer. The estimation and distribution of cytochrome oxidase and cytochrome C in rat tissues 555
Griffith, Wendell H., and Wade, Nelson J. Choline metabolism. I. The occurrence and prevention of hemorrhagic degeneration in young rats on a low choline diet 567
Summerson, William H. A combination simple manometer and constant volume differential manometer for studies in metabolism 579
Stern, Kurt G., and Melnick, Joseph L. On the mechanism of cocarboxylase action 597
Melnick, Joseph L. Ultraviolet absorption spectra of cocarboxylase, thiamine, and their reduction products 615
Hodson, A. Z., and Norris, L. C. A fluorometric method for determining the riboflavin content of foodstuffs 621
du Vigneaud, Vincent, Miller, Gail Lorenz, and Rodden, Clement J. On the question of the presence of methionine in insulin 631
Drinker, Nancy, Green, Arda Alden, and Hastings, A. Baird. Equilibria between calcium and purified globulins 641
Taylor, John Fuller, and Hastings, A. Baird. Oxidation-reduction potentials of the methemoglobin-hemoglobin system 649
Rosenbaum, Jack D., and Lavietes, Paul H. Lipoid-thiocyanate in serum 663
Rapoport, S., and Guest, George Martin. The rôle of diphosphoglyceric acid in the electrolyte equilibrium of blood cells: studies of pyloric obstruction in dogs 675
Rubin, S. H. The plasma and red blood cell lipids in persistent (diabetic) lipemia and in transient (alimentary) lipemia 691
Flexner, Louis B. Biochemical changes associated with onset of secretory activity in the metanephros of the fetal pig. The cytochrome oxidase-cytochrome system and oxidation-reduction potentials 703
Alburn, Harvey E., and Myers, Victor C. The creatine, phosphorus, and collagen content of different sections of the dog heart 713
Karady, S., Selye, H., and Browne, J. S. L. Changes in the chloride distribution between red blood cells and plasma during the course of the general adaptation syndrome 717

GYÖRGY, PAUL. The curative factor (vitamin H) for egg white injury, with particular reference to its presence in different foodstuffs and in yeast 733
GYÖRGY, PAUL, KUHN, RICHARD, and LEDERER, EDGAR. Attempts to isolate the factor (vitamin H) curative of egg white injury 745
BIRCH, T. W., and GYÖRGY, PAUL. Physicochemical properties of the factor (vitamin H) curative of egg white injury 761

Letters to the Editors

BALL, ERIC G., and RAMSDELL, PAULINE A. The catalytic action of milk flavoprotein in the oxidation of reduced diphosphopyridine nucleotide (cozymase) 767

INDEX TO VOLUME 131 769